

## IBM Tivoli Netcool/OMNIbus 7.3.1

Pre-installation checks and log monitoring for the upgrade of Tivoli Integrated Portal version 2.1 to version 2.2 on Windows

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In this training module, you learn how to perform pre-installation checks before upgrading from IBM Tivoli® Integrated Portal 2.1.0 to 2.2.0.1. You also learn about the different logs that are used to monitor this upgrade procedure.

## Objectives

When you complete this module, you can perform these tasks:

- Ensure pre-installation checks are completed before starting upgrades to Tivoli Integrated Portal 2.2
- Explain to others that you need to first upgrade to Tivoli Integrated Portal 2.2.0.1 for any upgrade from Tivoli Integrated Portal 2.1 to Tivoli Integrated Portal 2.2
- Explain to others that a feature pack must be installed with a release pack for cases when you upgrade Tivoli Integrated Portal 2.1 to Tivoli Integrated Portal 2.2
- Monitor several upgrade logs and tell others their locations and purpose

When you complete this training module, you can ensure that your pre-installation environment supports a successful upgrade of Tivoli Integrated Portal version 2.1 to 2.2. You also see which logs to monitor for verifying successful completion of the upgrade task.

## Assumptions

Before you proceed, the module designer assumes that you have these skills and knowledge:

- Intermediate Tivoli Netcool/OMNibus V7.3.1 web GUI product knowledge
- Intermediate WINDOWS OS-related technical knowledge on performing these tasks:
  - How to edit files
  - How to change permissions on files and folders

You should have intermediate knowledge of the IBM Tivoli Netcool/OMNibus V7.3.1 web GUI and the operating system that it runs on. You should also be able to perform such operating system tasks as editing files and changing read, write, and start permissions for both files and folders.

## Three IBM Tivoli Integrated Portal installation types

There are three IBM Tivoli Integrated Portal installation scenarios:

- A fresh installation where no previous Deployment Engine is installed
- A fresh installation where there is a previous Deployment Engine and the same Deployment Engine instance can be reused
- An upgrade installation of Tivoli Integrated Portal, as covered in this module

There are three types of IBM Tivoli Integrated Portal installations. They are displayed on this slide. For a pristine, clear system, you can perform a fresh installation where there is no Deployment Engine already available in your environment. For this type of installation, look at just the installation logs. Another scenario is where the Deployment Engine is already installed in the environment. In this installation type, you reuse the Deployment Engine. The third scenario is upgrading to a newer revision of IBM Tivoli Integrated Portal; it is this scenario that is used in this module.

Upgrading from Tivoli Integrated Portal 2.1.0 requires first upgrading to Tivoli Integrated Portal 2.2.0.1 before upgrading to the higher levels. For example, if you have an APAR for the IBM Tivoli Netcool/OMNibus 7.3.1 web GUI being fixed in Tivoli Integrated Portal 2.2.0.7 and you want to upgrade to this level to get the fix, first upgrade to Tivoli Integrated Portal 2.2.0.1. Only then can you upgrade to Tivoli Integrated Portal 2.2.0.7.

## Pre-check on general environment data disk space and user permission

- Disk space usage check:
  - Locate the hard disk that you want to upgrade
  - Right-click the drive, select Properties, and verify the amount of free space available
  - Ensure that at least the minimum disk space is available during installation:
    - The installation directory needs a minimum of 2.5 Gb
    - The temp directory needs at least 500 Mb
- User permission check:
  - Verify that the user ID that is used performed the initial product installation and the user ID that is used to perform the current upgrade are the same
  - If the root user installed the previous Tivoli Integrated Portal instance, the same root user should upgrade the Tivoli Integrated Portal instance
  - For non-root user installation, ensure that the same user performs the upgrade of the Tivoli Integrated Portal instance

There must be enough disk space for the upgrade to be successful. Check the amount of space you had at the moment of installation. This slide mentions the advised minimum disk space at the installation and temp directory. User permissions also need to be checked and verified. It is best to ensure that the user ID used to perform the upgrade is the same as the one that was used to perform the initial product or Tivoli Integrated Portal installation.

## Pre-check on general environment data: Deployment engine output shows correct Tivoli Integrated Portal level as expected

- The installed product listing from the Deployment Engine **listIU** command should confirm that the Tivoli Integrated Portal installation is at the level that you are upgrading from
- Collect the output of these commands:
  - C:\Program Files\IBM\Common\acsi\bin\de\_version.cmd
  - C:\Program Files\IBM\Common\acsi\bin\listIU.cmd
  - C:\Program Files\IBM\Common\acsi\bin\de\_lsrootiu.cmd
- Example: If you are upgrading from Tivoli Integrated Portal 2.1.0.1, you can expect to see output like this example when running the **listIU.cmd**

```
C:\Users\<USERNAME>\acsi_<username>\bin>listIU
IU      UUID: DDCE934782398B3E81431666515AC8B5  Name: DE Extensions Interfaces CLI IU   Version: 1.4.0.14
IU      UUID: C37109911C8A11D98E1700061BDE7AEA  Name: Deployment Engine IU Version: 1.4.0.14
IU      RootIU UUID: D94240D11C8B11D99F2D00061BDE7AEA  Name: Install IU Version: 1.4.0.14
IU      UUID: 5FFE79F918DF3BA0D67511FD3F7C358E  Name: SIU-TIPCore      Version: 2.1.0.0
IU      UUID: 5FFE79F918DF3BA0D67511FD3F7C358E  Name: SIU-TIPCore      Version: 2.1.0.0
IU      UUID: 5FFE79F918DF3BA0D67511FD3F7C358E  Name: SIU-TIPCore      Version: 2.1.0.1
IU      RootIU UUID: 2ADC4A33F09F4E85AD27963E850290C3  Name: TIPCore          Version: 2.1.0.0
IU      RootIU UUID: 2ADC4A33F09F4E85AD27963E850290C3  Name: TIPCore          Version: 2.1.0.0
IU      RootIU UUID: 2ADC4A33F09F4E85AD27963E850290C3  Name: TIPCore          Version: 2.1.0.1
```

This slide shows several commands to check the version of Tivoli Integrated Portal. Use these commands as a pre-check to ensure that you have the expected level of Tivoli Integrated Portal. Checking the logs is beneficial if a machine has multiple levels of Tivoli Integrated Portal or if there have been multiple attempts to install Tivoli Integrated Portal. You can use the command **listIU.cmd** as shown in this example. Make sure that all the outputs are collected and monitored for upgrade logging purposes.

## Pre-check on general environment data: Java process-related

- You expect to see an installed IBM version of Java Runtime Environment (JRE) 1.6.0 running
- Use a **services** utility to view the paths that are associated with each Java process
  1. Open the Windows Control Panel, click the Search bar on the upper right, and enter the search term **services**
  2. Click the option **View Local Services**

In order to run this administrative function, you might need to enter the Administrator username and password
  3. Browse to the Tivoli Integrated Portal Service and verify its path
- Before you install the Tivoli Integrated Portal Fix Pack, you must stop any Tivoli Integrated Portal-related Java processes that are running on your system.
  1. Verify that the Java process is not running by typing **Taskmgr** at a command prompt
  2. Click **Processes** in the Task Manager
  3. If the **java.exe** process is listed, select it and then click **End Process**
  4. Click **Yes** on the Task Manager Warning window to confirm the action

Before you start upgrade steps, you must stop any Java processes running that are associated with the Tivoli Integrated Portal. For Windows, you use the **services** utility to verify the path of the IBM Java process that is running Tivoli Integrated Portal. Then, use the Task Manager to stop the Java Tivoli Integrated Portal process. Ensure that you stop the correct Java program.

## Obtaining Tivoli Integrated Portal downloads

- You need to install a feature pack on top of the upgrade pack. This feature pack allows you to upgrade your environment from Tivoli Integrated Portal Version 2.1.0 to Tivoli Integrated Portal 2.2.0.1.
- Confirm the current Tivoli Integrated Portal version level. You can use the **listIU.cmd** command to get the output and specifically looking at the TIPCore version.

```
C:\Users\<>acsi_<username>\bin>listIU
IU      UUID: DDCE934782398B3E81431666515AC8B5  Name: DE Extensions Interfaces CLI IU  Version: 1.4.0.14
IU      UUID: C37109911C8A11D98E1700061BDE7AEA  Name: Deployment Engine IU Version: 1.4.0.14
IU      RootIU UUID: D94240D11C8B11D99F2D00061BDE7AEA  Name: Install IU Version: 1.4.0.14
IU      UUID: 5FFE79F918DF3BA0D67511FD3F7C358E  Name: SIU-TIPCore  Version: 2.1.0.0
IU      UUID: 5FFE79F918DF3BA0D67511FD3F7C358E  Name: SIU-TIPCore  Version: 2.1.0.0
IU      UUID: 5FFE79F918DF3BA0D67511FD3F7C358E  Name: SIU-TIPCore  Version: 2.1.0.1
IU      RootIU UUID: 2ADC4A33F09F4E85AD27963E850290C3  Name: TIPCore  Version: 2.1.0.0
IU      RootIU UUID: 2ADC4A33F09F4E85AD27963E850290C3  Name: TIPCore  Version: 2.1.0.0
IU      RootIU UUID: 2ADC4A33F09F4E85AD27963E850290C3  Name: TIPCore  Version: 2.1.0.1
```

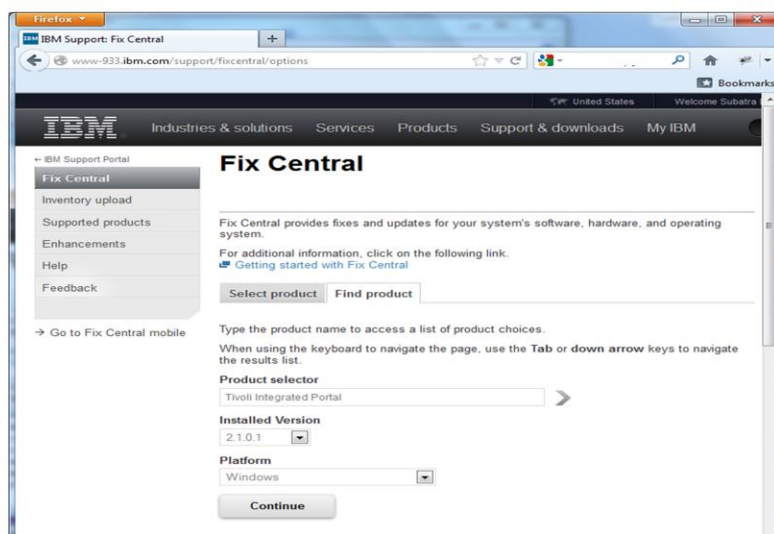
- Here you can see that your Tivoli Integrated Portal level is 2.1.0.1.

To upgrade from Tivoli Integrated Portal 2.1 to 2.2, you need to install a feature pack on top of the upgrade pack. You must know the current level of Tivoli Integrated Portal before proceeding with the upgrade. You again use the **listIU** command to determine the current level.



## Logging in to IBM Fix Central to obtain Tivoli Integrated Portal fixes

- Log in to IBM Fix Central:  
<http://www.ibm.com/support/fixcentral>
- Enter **Tivoli Integrated Portal** at the Product Selector list; then select the version from the **Installed Version** list and your platform from the **Platform** list. In this example, you select Installed Version **2.1.0.1** for the Platform **Windows**.
- Click **Continue**.
- The next page is **Identify Fixes**. You do not need to complete this page. Click **Continue**.



Once you know which Tivoli Integrated Portal is installed at your environment, browse to IBM Fix Central. Select **Tivoli Integrated Portal** at the **Product Selector**, then select the **Installed Version** of Tivoli Integrated Portal that you currently have in your environment. Finally, enter the platform that you are downloading the upgrade files for. In this example, you know that the current Tivoli Integrated Portal in your environment is 2.1.0.1, so you select the product as **Tivoli Integrated Portal** with Version **2.1.0.1** for the Windows platform. Click **Continue**.

## Obtaining Feature Pack files on the Results page

- On the Results page, you must download two files for upgrades of Tivoli Integrated Portal 2.1.0 to 2.2.0.1:
  - The file **2.2.0.1-TIV-TIP-FITSuit-RP0001v3** is the feature pack
  - The file **2.2.0.1-TIV-TIP-Windows32-RP0001** is the refresh pack
- Select the check box for each file, then click **Continue**.
- The IBM login page opens. Enter valid IBM credentials. The final screen displays the **Download Now** button
- Click the **Download Now** button to download these two files to your local environment.
- Review all the next steps from the Tivoli Integrated Portal 2.2.0.1 Feature Pack Installation and troubleshooting Guide document accessible here: <http://www-01.ibm.com/support/docview.wss?uid=swg21617142>

### Select fixes

The following results match your request. Select the fixes you want to download.

To try a different query, go to the [Identify fixes](#) page.

Continue

Clear selections

1-2 of 2 results

1. refresh pack: [2.2.0.1-TIV-TIP-FITSuit-RP0001v3](#) →  
2.2.0.1-TIV-TIP-FITSuit-RP0001v3
2. refresh pack: [2.2.0.1-TIV-TIP-Windows32-RP0001](#) →  
2.2.0.1-TIV-TIP-Windows32-RP0001

On the Results page, select the two main packages: the Feature Pack and the Refresh Pack. Click **Continue**. The page prompts you for your IBM.com credentials, and then the Download Now page opens. Click **Download Now** and select a directory to save the packages, or Download Director will save the packages at the directory that you specified during previous downloads.

## Monitoring general upgrade installation logs

- **Main installation log:**
  - **IBM\_Tivoli\_Netcool\_OMNibus\_Web\_GUI\_Install-00.log**, sometimes referred to as the IA log
  - For both Administrator and User installation, the log file is at this location:  
`C:\Documents and Settings\\IBM_Tivoli_Netcool_OMNibus_Web_GUI_Install-00.log`
  - Understand the use of **IBM\_Tivoli\_Netcool\_OMNibus\_Web\_GUI\_Install-00.log**
  - Confirm that the last line of the log file displays **exit code: 0**, indicating that the installation succeeded
- **Important folders to be monitored for upgrade:**
  - The installation folder and logs where Tivoli Integrated Portal is installed; typically these folders are reviewed when upgrading where **<HOME>** is typically **C:\Documents and Settings**
  - Deployment Engine (DE) logs directory path  
`%ProgramFiles%\IBM\Common\acsi\logs`
  - The WEBGUI\_HOME\\_uninst  
`omnibus_webgui\_uninst`
  - The directory of the TIPHOME logs  
`%TIPHOME%\logs`
  - The directory of TIPHOME profiles logs  
`%TIPHOME%\profiles\logs`

The web GUI installer uses InstallAnywhere, Deployment Engine, and Composite Offering Installer when installing.

The **IBM\_Tivoli\_Netcool\_OMNibus\_Web\_GUI\_Install-00.log** is the main log that describes the overall installation flow. This file is typically found in your home directory. The common term that is used when referring to this file is **IA** log - for InstallAnywhere. It is important to check the exit code after each installation in this file. For successful installations, you see **exit code: 0**. For unsuccessful installations, you typically see **exit code: -1** in the last line.

You typically need to look at **\_uninst** and **logs** folders.

## The four kinds of upgrade logs

- **WebSphere® UPDI logs**
  - Generally a folder named **updilogs** at the installed users' home directory contains information about WebSphere upgrades.
- **Tivoli Integrated Portal Feature Pack logs**
  - Tivoli Integrated Portal 2.2.0.1 feature pack allows you to upgrade your environment from Tivoli Integrated Portal Version 2.1.0 to Tivoli Integrated Portal 2.2.0.1.
  - The Tivoli Integrated Portal feature pack process requires products to certify compatibility with new versions before an in-place upgrade is allowed which avoids problems with existing/installed products.
  - You can find the complete list of products that are certified for this exercise at the "IBM Tivoli Integrated Portal" community at the developerWorks® @ IBM.
  - Logs to user directory as **TIPFeaturePackInstaller-00.log**
- **Tivoli Integrated Portal Fix Pack logs**
  - Fix Pack are the upgrade packages available for Tivoli Integrated Portal
  - Logs to user directory as **TIPFPInstaller-00.log**
- **Deployment Engine logs**
  - Logs to this location:  
`%ProgramFiles%\IBM\Common\acsi\logs`

Generally you need to look at four kinds of logs for upgrade scenarios for IBM Tivoli Netcool/OMNIBus. Information about the WebSphere upgrades is in a folder named **updilogs**. These logs need to be collected and reviewed especially in the case of queries that are related to WebSphere Application Server upgrades. The other two logs are the Tivoli Integrated Portal logs. The second log on this slide is the Tivoli Integrated Portal Feature Pack log, which logs to the user directory as **TIPFeaturePackInstaller-00.log**. In this Tivoli Integrated Portal feature pack log, you find information about existing product's compatibility with the new version of the Tivoli Integrated Portal that is being installed. The third log shown, **TIPFPInstaller-00.log**, logs about the upgrade packages that are installed for Tivoli Integrated Portal. The fourth log type is the Deployment Engine logs. The Deployment Engine logs are essential for troubleshooting upgrade issues.

## Understanding the `_uninst` folder

### ▪ **Logs**

- Contains other logs that various tasks create during installation
- There are many standout and error files available at the `%TIPHOME%\profiles\TIPProfile\logs` folder

### ▪ **`_uninst`**

- This directory contains secondary logs that help with debugging detailed failures
- Scroll to the `plan` directory and you see three different subdirectories:
  - `checks`
  - `install`
  - `inventory`
- **Checks** and **inventory** directories contain logs that are created during pre-installations
- **Install** directory contains logs that are created during installation and postinstallation
- If the product fix packs embed Tivoli Integrated Portal fix packs, you might need both the product's `_uninst` folder and the Tivoli Integrated Portal fix pack's `_uninst` folder
- WebGUI `_uninst` folder is available at `omnibus_webgui\_uninst`
- The next slides show sample log files after a successful Tivoli Integrated Portal 2.2.0.1 Upgrade

Two folders are valuable for troubleshooting; the `_uninst` folder and the `logs` folder. The common logs folder for Tivoli Integrated Portal is named similarly to `%TIPHOME%\profiles\TIPProfile\logs\server1`. For installation, also see the logs that you find at the `%TIPHOME%\logs` folder. The `_uninst` directory in the folder `%TIPHOME%\_uninst` contains secondary logs that help with debugging detailed failures. The `_uninst` folder contains three different subdirectories.

The upgrade has two major steps that it needs to do. First, it does the pre-installation checks and inventory verification. The **checks** and **inventory** directories at the `%TIPHOME%\_uninst` folder contain logs and records that are created during pre-installation. The **installation** directory contains logs that are created during installation and postinstallation. Both these steps are automatic and these directories are for reference purposes so that you can better understand the installation or upgrade process.

When Tivoli Integrated Portal is included as part of the product fix pack deliverable, in addition to the Tivoli Integrated Portal `_uninst` folder, you also want to look at the product's `_uninst` folder at the location that is shown on this slide.

## Sample log (1 of 2)

```
%TIPHOME%\_uninst\TIPInstall2201\plan\checks\[INSTALL_Date] where %TIPHOME% is D:\IBM\Tivoli\tipv2\

2014-06-10 16:30:14.337 : Started: Parallel Plan: Operation = INSTALL
2014-06-10 16:30:14.337 : ProcessID: [INSTALL_0610_16.30]

2014-06-10 16:30:14.431 : Started: Machine Plan: MachinePlan_localhost
2014-06-10 16:30:14.431 : Log File:
D:\IBM\Tivoli\tipv2\_uninst\TIPInstall2201\plan\checks\MachinePlan_localhost/logs/[INSTALL_0610_16.30]/MachinePlan_localh
ost.log

2014-06-10 16:30:15.165 : Started: Deployment Step: step_00001_TIPInstall_PreCheck-FP1
2014-06-10 16:30:15.165 : Machine Plan: MachinePlan_localhost

2014-06-10 16:30:35.304 : Completed: Deployment Step: step_00001_TIPInstall_PreCheck-FP1
2014-06-10 16:30:35.304 : Machine Plan: MachinePlan_localhost

2014-06-10 16:30:35.304 : Completed: Machine Plan: MachinePlan_localhost
2014-06-10 16:30:35.304 : Log File:
D:\IBM\Tivoli\tipv2\_uninst\TIPInstall2201\plan\checks\MachinePlan_localhost/logs/[INSTALL_0610_16.30]/MachinePlan_localh
ost.log

2014-06-10 16:30:35.304 : Completed: Parallel Plan: Operation = INSTALL
2014-06-10 16:30:35.304 : ProcessID: [INSTALL_0610_16.30]
```

This slide shows a sample log in the **Checks** folder in the plan directory. You see that it has three **started** tasks and three **completed** tasks, indicating that all the steps are ready.

## Sample log (2 of 2)

```
%TIPHOME%\_uninst\TIPInstall2201\plan\install, where %TIPHOME% is D:\IBM\Tivoli\tipv2\

2014-06-10 16:45:10.070 : Started: Parallel Plan: Operation = INSTALL
2014-06-10 16:45:10.070 : ProcessID: [INSTALL_0610_16.45]

2014-06-10 16:45:10.195 : Started: Machine Plan: MachinePlan_localhost
2014-06-10 16:45:10.195 : Log File: D:\IBM\Tivoli\tipv2\_uninst\TIPInstall2201\plan\install
\MachinePlan_localhost/logs/[INSTALL_0610_16.45]/MachinePlan_localhost.log

2014-06-10 16:45:11.195 : Started: Deployment Step: step_00001_StopWAS
2014-06-10 16:45:11.195 : Machine Plan: MachinePlan_localhost

2014-06-10 16:46:30.413 : Completed: Deployment Step: step_00001_StopWAS
2014-06-10 16:46:30.413 : Machine Plan: MachinePlan_localhost

.....
2014-06-10 16:51:30.413 : Completed: Deployment Step: step_00008_TIPCorePostConfig
2014-06-10 16:51:30.413 : Machine Plan: MachinePlan_localhost

2014-06-10 16:51:30.413 : Completed: Machine Plan: MachinePlan_localhost
2014-06-10 16:51:30.413 : Log File: D:\IBM\Tivoli\tipv2\_uninst\TIPInstall2201\plan\install
\MachinePlan_localhost/logs/[INSTALL_0610_16.45]/MachinePlan_localhost.log

2014-06-10 16:52:28.349 : Completed: Parallel Plan: Operation = INSTALL
2014-06-10 16:52:28.349 : ProcessID: [INSTALL_0610_16.45]
```

On this slide, you see an example log in the **plan/install** directory. The log ends with **Completed: Parallel Plan: Operation = INSTALL** and indicates that all went well with the upgrade.

## Summary

Now that you completed this module, you can perform these tasks:

- Ensure pre-installation checks are completed before starting upgrades to Tivoli Integrated Portal 2.2
- Explain to others that you need to first upgrade to Tivoli Integrated Portal 2.2.0.1 for any upgrade from Tivoli Integrated Portal 2.1 to Tivoli Integrated Portal 2.2
- Explain to others that a feature pack must be installed with a release pack for cases when you upgrade Tivoli Integrated Portal 2.1 to Tivoli Integrated Portal 2.2
- Monitor several upgrade logs and tell others their locations and purpose

This slide shows the summary of the topics that are covered in this training module.



## Some useful IBM websites

- DeveloperWorks Tivoli Integrated Portal Community  
<https://www.ibm.com/developerworks/mydeveloperworks/groups/service/html/communityview?communityUuid=26d4aa47-4fd6-460d-a93b-3ee8945324d6>
- Tivoli Integrated Portal Read First MustGather  
<http://www-01.ibm.com/support/docview.wss?uid=swg21568245>
- Netcool/OMNIBus Read First MustGather  
<http://www-01.ibm.com/support/docview.wss?uid=swg21631338>
- IBM Support Portal Fix Central  
<http://www.ibm.com/support/fixcentral/>
- Web GUI Reference for Tivoli Integrated Portal 2.1 to Tivoli Integrated Portal 2.2 upgrade  
<http://www-01.ibm.com/support/docview.wss?uid=swg21617142>

Here are some IBM websites with more product information.



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